

REMARKS/ARGUMENTS

Re-examination and favorable reconsideration in light of the above amendments and the following comments are respectfully requested.

Claims 11 - 24 are pending in the application.

In the office action mailed September 14, 2005, claims 11 - 24 were rejected under 35 U.S.C. 112, second paragraph; claims 11 - 15 and 18 - 24 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,807,734 to Eldridge et al.; claims 11 - 15 and 18 - 24 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,243,757 to Grabbe et al. or U.S. Patent No. 4,499,366 to Yoshida et al.; claims 11 - 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2004/0016119 to Eldridge et al. in view of U.S. Patent No. 6,807,734 to Eldridge et al.; claims 11 - 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,078,598 to Kelso et al. in view of U.S. Patent No. 3,957,104 to Terpay.

The foregoing rejections are traversed by the instant response.

With respect to the rejection under 35 U.S.C. 112, second paragraph, this rejection is devoid of any merit. The claims do not define the refractory metal core in terms of a wax die. Rather the claims define the refractory metal core in terms of the environment in which it is used and the functions carried out by the various components of the refractory metal core. The Examiner has not pointed out any reason why the claims could not be understood when read in light of the specification. Applicants further point out that the wax die is referred to in the preamble in order to set an environment for the means plus function limitations in the claims. Applicants submit that one

can not appropriately claim the means plus function limitations without talking about the wax die and the core with which the refractory metal core interacts. Applicants hereby again request the Examiner to withdraw this rejection.

In order to find that a reference anticipates a claim, each and every limitation set forth in the claim must be found either expressly or inherently described in that reference. A review of the Eldridge et al. '734 patent, the Grabbe et al. patent, and the Yoshida et al. patent shows that none of these references is directed to a refractory metal core for maintaining a core in a desired position with respect to a wax die. Thus, none of them teach or suggest such limitations as "at least one integrally formed spring tab means for providing spring loading when closed in said wax die for creating a spring-like effect for positioning the core element in the wax die and maintaining the position of the core during shelling" (claim 11), "core element means for maintaining said core in said desired position with respect to said wax die" (claim 14), "means for engaging said core at a first end, a planar central portion, and a second end attached to said planar central portion" (claim 14), and "means for engaging a slot in said wax die." (claim 14). Eldridge et al. relates to a microelectronic contact structure and has nothing to do with any casting method. Grabbe et al. is related to a method of making contact surface for a contact element. Member 14 in Grabbe et al. is nothing more than an electrical contact. Yoshida relates to a ceramic heater device wherein element 80 is a lead wire. None of these references teach or suggest a core element formed from a refractory material having the planar central portion and the spring tab means of claim 11 and/or the core element means and its features of claim 14. For

these reasons, claims 11 - 15 and 18 - 24 are not anticipated by any of these references.

With regard to the rejection of claims 11 - 24 over Eldridge et al in view of Eldridge et al., neither reference is directed to a refractory metal core for maintaining a core in a desired position with respect to a wax die. Still further, neither reference teaches or suggests a core element formed from a refractory material having the planar central portion and the spring tab means of claim 11 and/or the core element means and its features of claim 14. For these reasons, claims 11 - 24 are patentable over the proposed combination of the Eldridge et al. patents publications.

With regard to the rejection of claims 11 - 24 over Kelso et al. in view of Terpay, it is submitted that claim 11 is allowable because neither reference teaches or suggests a core element having the claimed planar central portion and the integrally formed spring tab means. Claims 12 and 13 are allowable for the same reasons as claim 11 as well as on their own accord. Claim 14 is allowable because neither of the cited and applied references teaches or suggests the claimed core element means having the claimed core engaging means, the claimed planar central portion, and the claimed slot engaging means. Claims 15 - 18 are allowable for the same reasons as claim 14 as well as on their own accord.

With respect to the Examiner's comments on pages 5 and 6 of the office action, and with all due respect to the Examiner, it appears to Applicants that the Examiner is failing to recognize that Applicants are claiming components of the refractory metal core in terms of "means plus function" (which is permissible under the Patent Laws). In order to describe the function of the claimed components, it is necessary to include in the claim the

elements with which the components interact - namely, the wax die and the core. Applicants submit that there is no other way to claim these elements. If the Examiner believes that there is some other way to claim them in order to gain the allowance of the claims, then the Examiner should suggest that way.

For the foregoing reasons, the instant application is in condition for allowance. Such allowance is respectfully solicited.

A Notice of Appeal is appended hereto in the event that the Examiner maintains the rejections of record.

Should the Examiner believe an additional amendment is needed to place the case in condition for allowance, he is hereby invited to contact Applicants' attorney at the telephone number listed below.

The Director is hereby authorized to charge Deposit Account No. 21-0279 in the amount of \$500.00 to cover the cost of Notice of Appeal.

Should the Director determine that an additional fee is due, he is hereby authorized to charge said fee to said Deposit Account.

Respectfully submitted,

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I, Nicole Motzer, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on **December 7, 2005**.

